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EXAMINER

BOYKIN, TERRESSA M

| ART UNIT | PAPER NUMBER |
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1711

DATE MAILED: 05/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

10/500,275

Applicant(s)

WATANABE, JUN

Examiner

Terressa M. Boykin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
 Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 June 2004.
 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 1-11 is/are rejected.
 7) ☒ Claim(s) 4-9 is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☒ The drawing(s) filed on 29 June 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date 9/04/6/04.
 4) ☐ Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
 5) ☐ Notice of Informal Patent Application (PTO-152)
 6) ☐ Other: _____.

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Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Objected Claims

Claims 4, 5, 6, 7, 8, 9 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claims 3 and 4. See MPEP § 608.01(n).

35 USC 112, Second Paragraph

Claims 4,5,6,7,8,9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Since claims 4, 5, 6, 7, 8, 9 are improperly dependent upon a previous multiple dependent, i.e. claims 3 and/or 4, it is unclear as to the meets and bounds of the invention. The specific limitations of the claimed invention is not understood since the claim may or may not consist of a limitation of a previous claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United

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States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 3, 10 and 11 is are rejected under 35 U.S.C. 102(b and e respectively) as being anticipated by US 5550190 see abstract, col. 7 lines 30 –36, claim 12, ; US 5314927 see abstract, col. 1 lines 41- 55; or US 20020150775 see abstract, paragraph [0036].

US 5550190 discloses a thermoplastic polyester elastomer (A) is a polyester block copolymer and has, in the polymer chain, (A-1) a high-melting crystalline segment composed mainly of an aromatic polyester unit and (A-2) a low-melting polymer segment composed mainly of an aliphatic polyether unit and/or an aliphatic polyester unit.

The aliphatic polyester unit is obtained by polycondensing the above aliphatic dicarboxylic acid and the above glycol by an ordinary process. It may be a homopolyester, a copolyester, or a polylactone (e.g. a poly- ϵ -caprolactone) obtained by subjecting a cyclic lactone to ring-opening polymerization.

With regard to claim 3 note that the reference discloses "[I]n the composition of the present invention, the rubber component (B) is preferably dispersed in the thermoplastic polyester elastomer component (A). The average particle diameter of the rubber component (B) is preferably 50 .mu.m or less, more preferably 10 .mu.m or less, most

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preferably 5-0.01 μm . When the dispersed particles of the rubber component (B) have large particle diameters, no satisfactory physical properties are obtainable.

US 5314927 discloses a method for producing polyester foamed articles comprising: heating and foaming a resin composition comprising a foaming agent, and an aliphatic polyester. Specifically, the reference discloses a method for producing polyester foamed articles comprising: heating and foaming a resin composition comprising a foaming agent, and an aliphatic polyester having a melt viscosity of 1.0×10^3 - 1.0×10^6 poises at a temperature of 190 C. and a shear rate of 100 sec^{-1} , and having a melting point of 70 -190 C. Extrusion or forming in a mold using preexpanded beads can be applied. The foamed articles such as insulating boxes and cushioning materials have biodegradability and excellent mechanical properties such as tensile strength and cushioning properties.

Within the reference in col. 1 lines 41- 55, it is disclosed that "it has been found that a ring-opening polymerization of ϵ - caprolactone produces a higher molecular weight polymers, and proposed to use the polymer as a biodegradable resin. However, the resulting polymer is *limited to only special applications* because of a low melting point of 62 C. and a high cost thereof." Nevertheless, the resulting polymer has been treated in order for further use.

With regard to claim 3 note that the reference discloses that "The expandable beads can be produced by suspending the aliphatic polyester particles in water, forcing the volatile foaming agent into the water while stirring, and heating the mixture."

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US 20020150775 discloses in Example 1 a process for producing a composition which includes the heating of a polyester prepared in the same manner as the claimed invention.

"There was mixed 100 parts by weight of the Polyester Resin A with 11.1 parts by weight of a polycaprolactone resin having a number average molecular weight of 70,000 (PCL H7 having the relative viscosity of 2.60 manufactured by Daicel Chemical Industries, Ltd.) at 150.degree. C. in a laboratory mixer which rotates at 30 rpm. After torque in the mixer became constant, it was further kneaded for 10 minutes while heating to obtain a polyester resin composition. The polyester resin composition obtained was molded with a press equipped with a molding die while heating to obtain a resin sheet having 150 mmL.times.150 mmW.times.1 mmT. Molding was carried out at preheating temperature of 150.degree. C. for 10 minutes, and then by compression while heating at the conditions of 150.degree. C. and 100 kg/cm.sup.2 for 10 minutes. The resin sheet molded was taken out of the molding die after naturally cooled."

With regard to claim 3 note that the reference discloses in Paragraph [0036] that the polylactone, the aliphatic polyester resin, and lubricants are fed into a tumbler, followed by mixing for 10-20 minutes while agitating, and then adding an amide of a fatty acid and, further mixing for 20-30 minutes after adding a finely-powdered silica and starches. After that, melt-kneading is carried out at 140-210.degree. C. using a single- or twin-screw extruder, etc., whereby, powder or pellets of a resin composition can be obtained.

Consequently, the polyesters above, each of which were prepared in the manner as claimed, that is, via a "ring-opening polymerization of a polymer having hydroxyl and/or ester bonds and cyclic esters containing ϵ -caprolactone...", were each disclosed

as thereafter being "treated" by melting or heating in subsequent reactions. It is an obvious "consequence" that lower-boiling components would be removed during a process of heating and thus would be inherent. Regarding the temperature range limitation, **US 20020150775** discloses a temperature range of 140-210.degree. C.; **US**

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5314927 discloses a method having a melting point range of 70 -190 C; and with regard to **US 5550190**, , since the disclosed the temperature ranges are expressed differently, i.e. measured by pulse method NMR, and thus may be distinct from those claimed, it is incumbent upon applicant(s) to establish that they are in fact different.

Thus in view of the above, there appears to be no significant difference between the reference(s) and that which is claimed by applicant(s). Any differences not specifically mentioned appear to be conventional. Consequently, the claimed invention cannot be deemed as novel and accordingly is unpatentable.

Obviousness-Type Double Patenting

Claims 10 and 11 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-15 of copending Application No. 10500692. An obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but an examined application claim is not patentably distinct from the reference claims because the examined claim is either anticipated by, or would have been obvious over the reference claims(s). See e.g., *In re Berg*, 140 F 3d 1428, 46 USPQd 1226 (Fed. Cir. 1998); *In re Goodman*, 11F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F 2d 887, 225 USPQ 645 (Fed. Cir. 1985). Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 10 and 11 are generic to all

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that is recited in claims 1-15 of US patent application 2005/008026. Specifically, application recites a polyester polymer obtained by a ring-opening polymerization, which is "fully encompassed" by the application above. Although the limitation of "concentrations of E-caprolactone and its dimer are each not higher than 450ppm, since the claims of the application 10500692 may be read in light of its specification, the resulting polymer (C) are considered to inherently contain the amount of concentrations of E -caprolactone and its dimer are each not higher than 450 ppm.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented

Furthermore, there is no apparent reason why applicant would be prevented from presenting claims corresponding to those of the instant application in the other copending application. See also MPEP § 804.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Correspondence

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Please note that the cited U.S. patents and patent application publications are available for download via the Office's PAIR. As an alternate source, all U.S. patents and patent application publications are available on the USPTO web site (www.uspto.gov), from the Office of Public Records and from commercial sources. Applicants may be referred to the Electronic Business Center (EBC) at <http://www.uspto.gov/ebc/index.html> or 1-866-217-9197.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Terressa Boykin whose telephone number is 571 272-1069. The examiner can normally be reached on Monday through Friday from 6:30am to 3:00pm.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. The general information number for listings of personnel is (571-272-1700).

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

tmb


Examiner Terressa Boykin
Primary Examiner
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